

Abstract of the Disclosure

A chemical method is provided for the dewatering of biological sludge that has been digested by a thermophilic digestion process. Four versions of the chemical method are presented. The primary component in the four versions is a polyquaternary amine, preferably of the di-allyl dimethyl ammonium chloride (DADMAC) variety and from the epichlorohydrin di-methyl amine (epi-DMA) variety. By the first method, the polyquaternary amine is added directly, along with a cationic polyacrylamide, to the biological sludge. By the second method, the polyquaternary amine and an anionic polyacrylamide are added separately. By the third method, a quaternized polyacrylamide, having the polyquaternary amine as part of its polymer chain, is produced by copolymerization of acrylamide with monomers of polyquaternary amine quaternization and is added individually to the sludge. By the fourth method, the quaternized polyacrylamide from the method three is added in concert with a cationic polyacrylamide to the sludge.